

# NOAA CONDUCTS RESEARCH MISSION OF UNDERWATER HABITATS OF THE U.S. VIRGIN ISLANDS

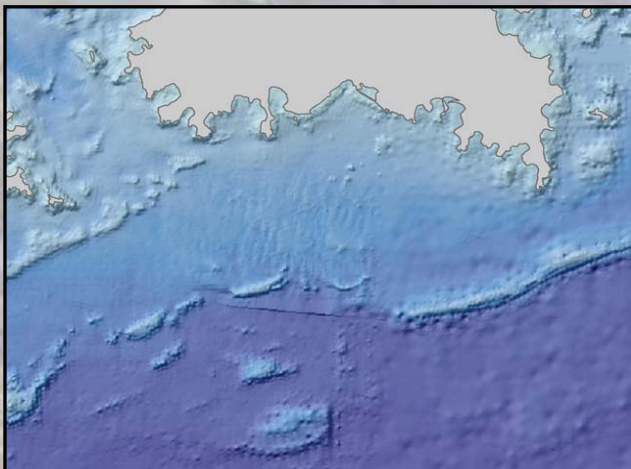
A PARTNERSHIP BETWEEN THE NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION, THE US NATIONAL PARK SERVICE, THE US GEOLOGICAL SURVEY, THE US VIRGIN ISLANDS DIVISION OF FISH & WILDLIFE, and TRITON ELICS INTERNATIONAL.

The National Oceanic and Atmospheric Administration's (NOAA) Center for Coastal Monitoring and Assessment (CCMA) will be conducting a scientific research mission on board the NOAA ship Nancy Foster from February 22 to March 3, 2004. This joint mission with the National Park Service (NPS) will explore and characterize nearshore and deepwater habitats (<1000m) of NPS's Buck Island Reef and Virgin Islands National Coral Reef Monuments within the U.S. Virgin Islands using a suite of remote sensing tools. NOAA is an agency of the Department of Commerce.

Scientists from CCMA will explore the type and extent of habitats in selected portions of both National Monuments using multi-beam sonar and under water video cameras. Concurrent with the benthic habitat remote sensing surveys, CCMA will conduct fish trap surveys and visual censuses using belt transects and stationary point counts (e.g. visual observation by divers) of fish, conch, and lobsters to characterize the populations of these resources within and outside the National Monuments.

Data from the mission will be used to produce maps of the seafloor topography, identification and mapping of the seafloor habitats, and spatially-explicit models of how fish species utilize habitats. The mission will also help NOAA meet its commitment to the U.S. Coral Reef Task Force to map coral reef ecosystems, and provide new information to update nautical charts covering the U.S. Virgin Islands.

Divers will be transported to pre-selected fish census sites using launches from the Nancy Foster. During the mission scientists will collect high-resolution bathymetry, habitat hardness, and habitat roughness; complementary video data that provides information about the seafloor; and the characterization of fish populations within the Monuments through the use of visual census and fish trap techniques.



**Figure 1.** Bathymetric Model of the study area south of St. John, USVI. Areas around the prominent ridge ranging from east to west will be mapped using multibeam sonar technologies.



**Figure 2.** A school of French grunts and blue chromis congregate among the diverse corals within the Virgin Islands National Coral Reef Monument south of St. John.

The National Center for Coastal Ocean Science (NCCOS) is collaborating with other NOAA program offices including, the National Marine Fisheries Service (NMFS), Office of Coast Survey (OCS), NOAA's Marine Aircraft and Operations (NMAO) and the Center for Operational Oceanographic Products and Services (CO-OPS). The U.S. Virgin Islands Territorial Government (Division of Fish & Wildlife), the US National Park Service, the US Geological Survey, and Triton Elics International, are also a part of the effort. The partnership based study is supported by NOAA's Coral Reef Conservation Program.

NOAA Ship Nancy Foster, home ported in Charleston, S.C., is one of a fleet of research and survey vessels used by NOAA to improve our understanding of the marine environment. The former Navy vessel was converted in 2002 to conduct a wide variety of coastal oceanographic research projects along the U.S. Atlantic and Gulf coasts. The ship has 17 permanent crew members and berthing for up to 16 scientists. Nancy Foster began operations in April 2003 and will be commissioned on May 10, 2004.

NOAA National Ocean Service is dedicated to exploring, understanding, conserving and restoring the nation's coasts and oceans. The National Ocean Service balances environmental protection with economic prosperity in fulfilling its mission of promoting safe navigation, supporting coastal communities, sustaining coastal habitats, and mitigating coastal hazards. NOAA is dedicated to enhancing economic security and national safety through research to better understand weather and climate-related events and to manage wisely the nation's coastal and marine resources.

On the Web:

[http://biogeo.nos.noaa.gov/foster\\_mission/](http://biogeo.nos.noaa.gov/foster_mission/)  
NCCOS: <http://coastalscience.noaa.gov/>